DOMESTIC SUMMARY.

The Autopsy of the Siamese Twins.—The following is a summary of the anatomical demonstration made to the College of Physicians of Philadelphia by Dr. HARRISON ALLEN, in behalf of himself and Dr. WM. H. PANCOAST, who were appointed by the College to conduct the autopsy.

The xiphopage monsters—Chang and Eng—were found to be united at the ensiform cartilage by a band about four inches long and eight inches in circumference. The two ensiform cartilages are very firmly joined along the left lateral border of Eng, Eng's process being the more robust of the two; and Eng was the stronger physically, although Chang was the stronger mentally. In the centre of the band is found an elliptical space, which suggests the presence of a synovial cavity. It is probable that the ensiform junction is of the character of a synchondrosis, with a median bursa-like sac; neither ensiform cartilage is ossified.

Within this band were found three interlacing peritoneal pouches.[1] The lowest pouch passes across the band from the abdomen of Chang and is lost in the duplicature of the suspensory ligament of the liver of Eng. It is immediately above the umbilicus, and is only separated from the skin by a delicate layer of tissue on the under surface of the band. The pouch above this is prolonged from the abdomen of Eng and is lost between the layers of the suspensory ligament of the liver of Chang. When the significance of the round ligament at the free border of the suspensory ligament is remembered, the relation of these pouches suggests that they have had essential bearings to the umbilical vein of the funis, and may be provisionally termed the umbilical pouches. Above Eng's pouch, just described, and between it and the under surface of the ensiform conjunction, is a second pouch prolonged from Chang's abdomen.

Extending up into this last pouch from Chang's abdomen is a process which suggested the possibility of the transit of hepatic vessels—a view rendered more probable from the fact that a similar process passed up into the band from the liver of Eng. A coloured plaster injection was thrown into a tributary of the portal vein of Chang, and the injected fluid passed freely into the liver of Eng, as well as into some of the mesenteric veins. The livers when removed from the bodies were found to be connected together by a band of liver-like tissue.

The tissues of the band on Eng's side are well nourished and present a strong contrast to Chang's end; Chang himself being the weaker of the two. This difference is very plainly marked in the two halves of the band, proving that there could not be any very intimate communication of the vessels between the two.

Examining the band posteriorly, there was found an arrangement of interlacing aponeurotic fibres, which, starting in Chang, pass across the median line and are inserted into the ensiform cartilage of Eng.

The twins died January 17, 1874, aged 63 years. Chang for some days prior to his death had been complaining of cough, with dyspnœa, and pain in the chest, which, on the night of his death, he declared was so great that it would kill him to lie down. Eng, however, became so sleepy from continuous sitting up that he insisted that he must lie down; finally,

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[1] Since the demonstration at the College a fourth pouch has been detected extending from Eng's side into the band. It answers to the hepátic or upper pouch of Chang.

Chang yielded to his brother's importunities, and they went to bed. Shortly afterwards Chang was found to be dead, and Eng then complained of pains, especially in his limbs, which continued until he passed into a stupor, about an hour after the family were aroused.

Dr. Allen believed Chang's death to have been caused by cerebral hemorrhage, and that of Eng by fright.

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Improvement of the Vertebrated Prostatic Catheter, by the addition of a Counter-beak.—T. H. SQUIRE, M.D., writes to us that he communicated to the New York State Medical Society at its recent meeting a description of an improvement which he has made in his vertebrated prostatic catheter. (See No. of this Journal for Oct. 1871.)

The chief defect in the vertebrated catheter, as originally constructed, was found not in the introduction, but in the withdrawal of the instrument. The edge of the cup contiguous to the shaft would sometimes catch upon folds of the mucous membrane, and render the withdrawal a little difficult and painful, thus placing also an unnecessary strain upon the chain.

To remedy this, Dr. S. has devised a special piece, which he names a counter-beak, to connect the shaft with the floating part of the instrument; this counter-beak is nearly egg-shaped, with a suitable opening in each extremity, and having a short neck which projects from one of its extremities, which short neck projects into the extremity of the shaft, in which it should play loosely. By this arrangement there is no sharp edge to catch upon the urethra, and the instrument passes as easily and as smoothly in one direction as in the other.

The vertebrated catheter, thus improved, Dr. S. thinks is perfectly safe; but, like every other delicate and complex instrument, he admits it requires watchfulness, prudence, and care in its use. It should be taken apart and cleansed after each operation, and, before being put together again for use, the chain should be carefully inspected.

To facilitate and insure these necessary precautions, each instrument should be kept in a special case; thus the physician will be compelled on each occasion to take his catheter apart, in order to adjust it in its case for convenience and safe keeping. Dr. S. says: the vertebrated catheter should never be used where stricture of the urethra exists.

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Logical Proof of the Contagiousness and Non-contagiousness of Diseases.—Prof. AUSTIN FLINT, in an interesting paper on this subject (*New York Medical Journal*, February, 1874), lays down a series of propositions which embody what he regards as the logical proof of either the contagiousness or the non-contagiousness of diseases. He applies these propositions to the solution of the question as to the contagiousness of cholera, and infers that the logical proof of the non-contagiousness of that disease is conclusive. Recapitulating the points embraced in his propositions, he maintains:—

"1. It is not communicable by immediate contact, nor by impalpable emanations from the body, because, of those who are brought into contact with, or close proximity to, patients affected with the disease, a considerable portion do not have it; whereas, of those who have the disease, a considerable proportion are known not to have been brought into contact with, or close proximity to, patients affected with it.

"2. Out of a large number of instances in which persons going from situations in which previously there had been cases of it, and being seized with the disease in the latter situations, no cases subsequently therein occur.

"3. The history of cholera epidemics shows outbreaks simultaneously or in quick succession in different localities widely separated, and between which there had been no communication by human intercourse, and when the transportation of a contagium by means of food or drink was impossible.

"4. Cholera epidemics are self-limited as regards duration.

"5 Cholera epidemics show a progressive increase, followed by a progressive decrease in the severity of the disease.

"6. The epidemic diffusion of the disease over a large area takes place often with great rapidity, and its disappearance is rapid and speedily complete.

"7. Cholera epidemics generally occur during the warm seasons of the year; they rarely occur in sparsely-settled, salubrious situations, and the special course seems to require, for its efficacy, auxiliary causes or localized conditions."

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Pathology of Insanity.—Dr. John P. Gray, Superintendent of the New York State Lunatic Asylum, has for several years past been engaged in pathological investigations, and more recently in special microscopic work, and in the No. of the *American Journal of Insanity* for January last gives a brief summary of some points of interest.

He states that:—Although the cases thus far examined may be regarded as insufficient to establish general conclusions, they go to strengthen the conviction sustained by the laws of general pathology, that insanity is a physical disease of the brain, and that the mental phenomena are symptoms. Further, that the microscope, with patient and close investigation, will continue to disclose structural changes in the cerebral tissue, as marked as those heretofore unsuspected, when examinations were limited to the scalpel and naked eye; and in these investigations, when the entire range of the disease, in every stage of its progress, shall have been brought under the microscope, we may be able to solve the problem of the morbid processes denominated insanity.

Another conclusion to which these investigations would naturally lead, is, that the variety and changes in the predominent symptoms of insanity may acknowledge their cause, not so much in the variety of lesions as in the special parts of the cerebral centres which are morbidly involved in each case; or to bring the idea within narrower limits, that emotional, ideational and motor disturbances, have their foundation in the extent and degree to which the nerve elements that minister to the execution of intellectual and motor acts are involved in the lesion. When the disease reaches its ultimate stage, all distinctions cease, dementia being the same closing stage of every so-called form of insanity.

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Hemorrhage from the Internal Carotid Artery successfully treated by Ligature.—A very interesting case of this is related (*New York Med. Journ.*, Jan. 1874) by Dr. H. B. Sands. The subject of it was a man æt. 53, on whom Dr. S. performed disarticulation of the left half of the lower jaw on account of a malignant scirrhous tumour. "The usual incision having been made, the jaw was divided on the left of the median line, through the socket of the corresponding canine tooth. The bone was then forcibly everted, while I quickly severed, by means of a pair of stout scissors, the soft parts covering the internal surface of the tumor, and then completed the disarticulation. Copious arterial hemorrhage, checked temporarily by the pressure of the left forefinger, attended this manœuvre, and, on subsequent examination of the tumour, there were found running through it an inch of the trunk of the external carotid artery, and portions of about equal length of the digastric muscle and the hypoglossal nerve. These parts were necessarily divided and removed, together with the tumour. The external carotid, together with some smaller arterial vessels, having been tied, I was about to close the wound, when free venous bleeding took place from a small opening that I had accidently made in the internal jugular vein. After some reflection as to the best course to pursue, I seized the margins of the wound in the vein, and applied a lateral ligature, not occluding the calibre of the vessel. The wound was then closed by sutures, except at its middle part, where an opening, half an inch long, was left for the exit of the ligatures. During the operation it was noticed that the upper part of the common carotid, and the internal carotid artery, from its origin to the base of the skull, were exposed, and could be seen pulsating at the bottom of the wound.

"On the tenth day after the operation, at ten o'clock in the evening, while my partner, Dr. Curtis, was engaged in cleaning the wound, a sudden escape of blood took place, both from the external opening and through the mouth. Dr. Curtis at once compressed the common carotid with the left hand, and, ripping open the upper end of the original incision, passed in two fingers of the right hand, and made pressure over the line of the internal carotid. The hemorrhage ceased at once, about two ounces of blood having been lost, whose colour gave no certain indication of the source of the bleeding. Pressure was successfully maintained until my arrival, at the end of about half an hour. It was then found that one of the upper two fingers covered the bleeding point, which was evidently above the carotid bifurcation, and Dr. Curtis was relieved by my pupil, Mr. Shafter. The ligatures were then examined, and that on the internal jugular vein identified and found to be attached far below the bleeding point. No ligature could be identified as belonging to the external carotid artery. After looking at the ligatures, I, without giving ether, prolonged the opening in the neck downward along the anterior edge of the sterno-mastoid muscle, and endeavoured to reach the common carotid high up. Owing to the altered condition of the parts, this proved impracticable; so, having divided the omo-hyoid muscle, I exposed the artery just below it, where the tissues were normal, and passed, without tightening it, a ligature.

"The common carotid was then compressed between the ligature and the finger, and pressure relaxed upon the bleeding point. A very vigorous spurt of blood followed, and pressure was resumed.

"An examination of the surface, immediately above the seat of hemorrhage, revealed a very soft pulsation, just beneath the granulations along the line of the internal carotid. The latter vessel I directed Dr. Curtis to dissect, while I controlled the bleeding. The internal carotid was exposed by scratching through the condensed tissues with the point of a grooved steel director; a ligature was passed, and was immediately tightened, as was just afterward the one encircling the common carotid. I then lifted my finger from the bleeding point, and no gush followed, but a bleeding continuous in character, and small in amount. This was easily controlled by pressure just below the opening, and for the first time the exact seat and nature of the latter were completely open to inspection. The blood was found to come from a small, circular, clean-cut ulceration in the side of the internal carotid artery, situated an inch below the upper ligature, and the same distance above the upper border of the thyroid cartilage. Through this opening, the white and glistening surface of the inner coat of the opposite side of the arterial wall was distinctly visible. After ascertaining the opening to be in the side of the internal carotid, I readily exposed this vessel two or three lines below the opening, and applied a ligature, thus cutting off the source of the trifling hemorrhage which had persisted after the tightening of the first two ligatures. This hemorrhage must have been caused by the recurrent circulation through branches springing from the stump of the external carotid. The lower portion of the wound was then closed by a few silk sutures, and the rest lightly filled with dry lint.

"The operation, which lasted about two hours, was wonderfully well borne, the patient making no complaint. He lost, altogether, both during the operation and the antecedent hemorrhage, not more than four or five ounces of blood, and the pulse continued firm throughout. Milk and iced brandy were administered through the night, and the patient obtained sleep without anodynes.

"The subsequent progress of the case was eminently satisfactory. The two ligatures on the internal carotid separated on the ninth day, that of the common carotid on the fourteenth day, and that of the internal jugular vein on the seventeenth day after their application. The upper ligature on the internal carotid had in its noose an offensive white slough of the artery, three-eighths of an inch long, and another hemorrhage was feared. None occurred, however, and the patient recovered completely without any further unpleasant symptoms."

A similar operation is reported (*Nashville Journ. Med. and Surg.*, March, 1871, and Feb. 1874) to have been performed by Dr. W. T. BRIGGS, Prof. of Surgery in Nashville Medical College, and with a like successful result.

Ligature of the External and Internal Carotids for Hemorrhages of the Face and Neck, and into the Mouth and Fauces.—The treatment of hemorrhages in the region of the face and neck and into the mouth and fauces, not amenable to control by pressure or the ligation of the bleeding vessels at the seat of lesion, has given rise, Dr. STEPHEN SMITH remarks (*New York Med. Journ.*, Jan. 1874), to much discussion and a variety of operations. In 1864 this distinguished surgeon states he had occasion "to treat a patient suffering from extensive cancerous disease of the face, mouth, and fauces, which was attended with a hemorrhage quite beyond control by pressure or other local measures. The ligature of the common carotid seemed a proper operation, both to prevent further hemorrhage, and also to delay the progress of the growth. Fearing a renewal of the hemorrhage by the returned circulation, and also a possible secondary hemorrhage from ligature of the main trunk, I was led, in the few moments allowed for deliberation, to adopt an operation which I believed would accomplish the purpose without the dangers of the old operation. This operation consisted in applying ligatures to the external and internal carotids, just above the bifurcation of the common trunk. The operation was easily performed, the ligatures separated in the usual time, no more hemorrhages occurred, and there was a temporary suspension of the growth, with a tendency to cicatrize at some points. No cerebral symptoms were at any time present. The patient died several months after, from extension of the disease, but I was unable to obtain an autopsy.

"It occurred to me at the moment that, by the ligature of the two branches there would be less liability to secondary hemorrhage than if ligatures were applied to the common trunk and to one of the branches. What was the precise method of cure in this case is not ascertained. No branches of the external carotid were brought into view in the operation, and it is to be inferred that the superior thyroid and lingual arose at a point admitting of ligature to the trunk of the external carotid below them. So far as external examination could be relied on, the closure of the common carotid at its bifurcation was complete.

"The success of this operation induced me to repeat it recently in a case of sloughing wounds of the side of the tongue and fauces following a pistol-shot. The patient had attempted suicide by discharging a pistol into his open mouth. The ball traversed the left side of the tongue, grazed the tonsil, and lodged under the skin of the back of the neck. After several days the wounds assumed a sloughing condition, and hemorrhage occurred at several points.

"At first it was controlled by pressure and styptics, but at length it became so profuse and unmanageable that I proceeded to ligate the external and internal carotids just above their origins. No branch of the external carotid was seen. No further hemorrhage occurred, nor were there cerebral or other unfavourable symptoms: the ligatures separated on the thirteenth day, but the wounds did not finally close in two months.

"One feature in this case is of interest, and that is, the continued pulsation of the common carotid up to its bifurcation. At first this symptom was believed to be due to the impulse of the current from below, but in time it became apparent that there was a continuous current throughout the common trunk, and beyond the bifurcation nearly in the direction of the internal branch. This pulsation was not communicated from below, but had all the characteristics of a regular pulse due to a flow of blood. This peculiarity may have been the result of a current of blood through the ascending pharyngeal branch arising at the bifurcation. It did not, however, prevent the successful closure of the arteries.

"These cases demonstrate not only the safety of the simultaneous ligature of the external and internal carotids at their origins, so far as relates to their obliteration, but also the success of the operation in controlling hemorrhages from many different points in the region of the face. This latter conclusion is doubted by Berard and others, who prefer ligature of the common carotid with the branch from which the hemorrhage occurs.

"This operation would not, of course, supersede ligature of the external carotid in cases in which ligature of that artery at a safe point, as above the digastric muscle, would control the hemorrhage. It could only be preferred in those cases of hemorrhage from extensive surfaces, or many different points, which have hitherto involved ligature of the common carotid."

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Electricity in Post-partum Hemorrhage.—Dr. CHAS. W. EARLE relates (*Med. Examiner*, Feb. 1, 1874) a case of post-partum hemorrhage in which after other measures had failed he successfully resorted to electricity. The subject of it commenced to experience labour-pains on the 9th December, but the uterus seemed unable to effect the expulsion of the fœtus, and after waiting about twenty hours she was readily delivered with instruments. Without moving her Dr. E. says he "sat down by the bedside to watch the condition of the uterus for one hour before putting on the binder and taking my departure. There had been such inertia of the womb during the entire labour that I was fearful of what my patient very soon experienced.

"Without any premonition whatever, the uterus ceased its contraction, and a stream of blood, apparently as large as half my arm, came pouring from the vagina.

"I immediately introduced my right hand to the fundus of the womb, and, with my left, tried to compress the descending aorta, giving orders at the same time to the attendants to administer more ergot, to lower the patient's head, apply cold water to the abdomen, and procure a piece of ice for inserting into the uterus. All this was done rapidly, and in much better order than is usual in such cases. But what a change there was in my patient! In two minutes she had changed from a most favourable condition—indeed, from a joyous and happy one—to an exsanguine, bloodless, and pulseless state; apparently, she was moribund.

"In addition to what I had already done, I gave what stimulants could be found in the house; and keeping my hands in the position noticed above, as the most effective way of stopping the largest amount of blood, sent immediately for Dr. I. N. Danforth, who lived in the immediate vicinity. He came forthwith, and relieving me from my most fatiguing position, suggested port wine and carb. ammonia as the stimulant. Ergot had been given freely; ice, externally and internally, had been used; compression resorted to; stimulants and nourishing broths administered; but the hemorrhage did not cease. Nothing, up to this time, had produced a good, strong continuous contraction of the uterus. Dr. Danforth now advised electricity; and in a very few minutes a battery was at hand; and placing one pole over the sacrum, and the other over the uterus, the current was commenced.

"The effect was instantaneous and almost marvellous.

"The uterus *contracted firmly*; the *hemorrhage ceased immediately*; and as long as the electrical current was continued, the uterine tumour remained hard, and of proper size.

"It was necessary, however, to keep up the current for some time; for, as soon as we ceased using the electricity, the womb softened, and blood commenced to flow. It was above twelve hours before we ceased using the instrument altogether. At that time the adynamic condition of the entire system, and uterus especially, seemed to be overcome, and we felt safe in leaving our patient.

"The lady was saved, and made a very comfortable convalescence. Electricity certainly contributed largely to the favourable result."

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Pepsin.—Dr. R. T. EDES has examined many of the preparations of pepsin now offered for sale, and gives (*Boston Med. and Surg. Journal*, Jan. 1, 1874) the following as his conclusions:—

"Much of the dissatisfaction with pepsin expressed by physicians is due to the use of preparations which contain little or none of it.

The pepsin made by Scheffer's process is by far superior to any other in ordinary use.

The wine is feeble, but not necessarily inert.

Elixirs of pepsin and bismuth are humbugs.

Pepsin should be administered with an acid, and with as few drugs as possible. A small amount of alcohol is not inadmissible, but a large amount retards digestion.

Its beneficial action is *not limited* by the amount of albumen which it dissolves in a test-tube without change or renewal of any of the contents.

Herpes Gestationis.—Dr. L. DUNCAN BUCKLEY describes (*Am. Journ. Obstetrics*, Feb. 1874), under this title a case of a rare affection of the skin peculiar to pregnancy, and also gives a summary of eight other similar cases which he has found recorded. From the clinical histories of these nine cases he sums up the peculiar features of the disease as follows:—

1. There is an affection of the skin directly dependent upon the gravid state of the uterus, which may make its appearance at any period of gestation up to the seventh month, and generally continues until the organ is emptied of its contents, and has in a measure resumed its former state; this eruption is very apt, moreover, to recur at each successive conception. (See Table of Cases.)

2. The cutaneous manifestations are chiefly an intense irritation, consisting of burning, itching, or stinging, and sometimes pains, with the development of erythema, papules, vesicles, and bullæ up to the size of a hen's egg, the majority of the blebs, however, seldom surpassing in size a large bulla of herpes. These vesicles are commonly in groups, but do not follow any definite nerve-tracks, appearing first generally on the extremities and afterwards involving the larger part of the body. Exhaustion may ensue from the cutaneous irritation, but the disease is non-febrile.

3. The eruptive disease does not terminate at once after delivery, but slowly retrogrades, by the development of fewer and fewer vesicles at increased intervals, until the disposition thereto ceases entirely. An outburst of greater or less severity is most likely to happen on the third day; it is rare for any manifestations of the disease to remain a month after parturition.

4. This affection is sometimes accompanied or followed by other neurotic manifestations, as erythema, urticaria, and neuralgia, which may continue in the interval of conception, while in many instances the patient experiences perfect health in the *interim*.

5. This eruption has occasionally been the first indication that impregnation has taken place.

6. The majority of the cases have been uninfluenced by treatment, relief occurring only on the emptying of the uterus.

7. The children are not, as a rule, affected by the eruption in the mother, although in one case it was accompanied in two instances by a still-birth; here, however, the first eruption was followed by the delivery of a living child, whereas the second conception gave a still-born child without any maternal eruption.

Normal Ovariotomy.—Prof. T. G. THOMAS reported to the New York Obstetrical Society (Dec. 2d, 1873), a case of normal ovariotomy (removal of both ovaries as a cure of the intense and incessant nervous suffering attributable only to them, and not on account of the usual cystic degeneration) performed by him 11 days ago, which was doing very well.—*Am. Journ. Obstetrics*, Feb. 1874.

This operation was first performed by Dr. Beatty of Georgia, and the above is we believe the only other operation of this kind. Dr. B.'s case is reported to have been cured.